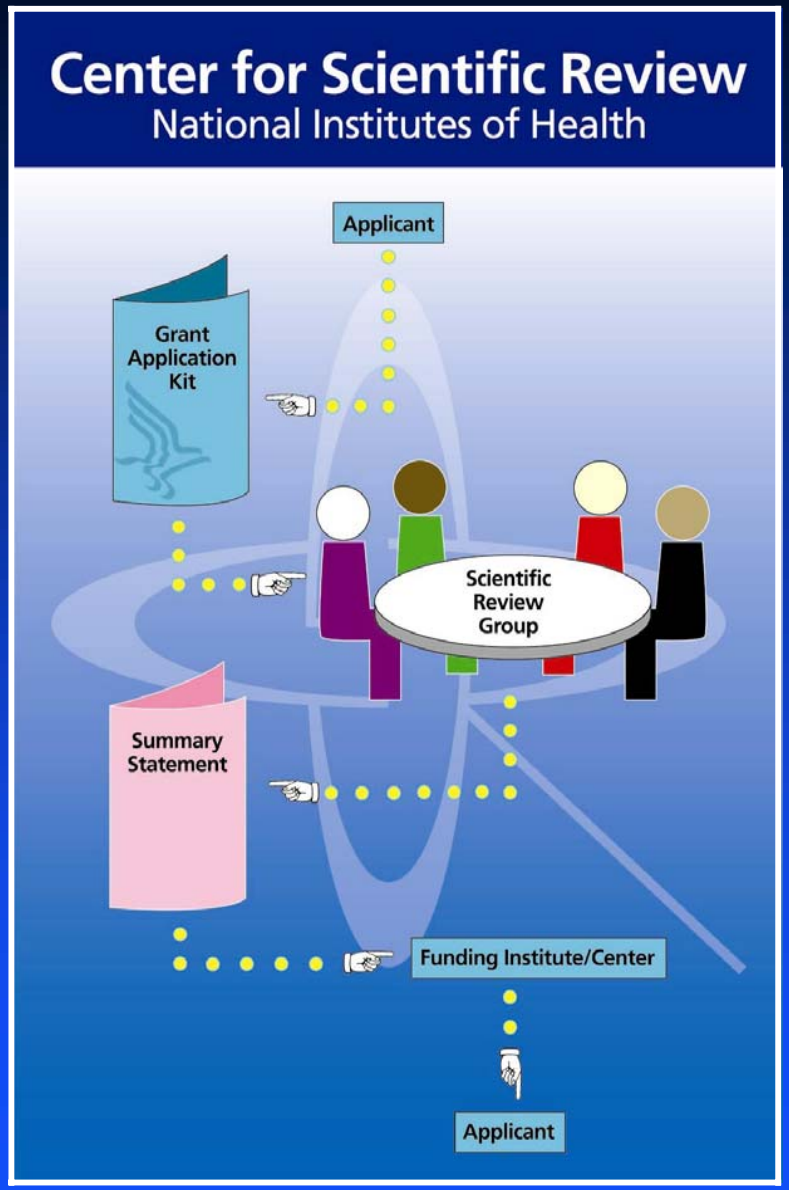
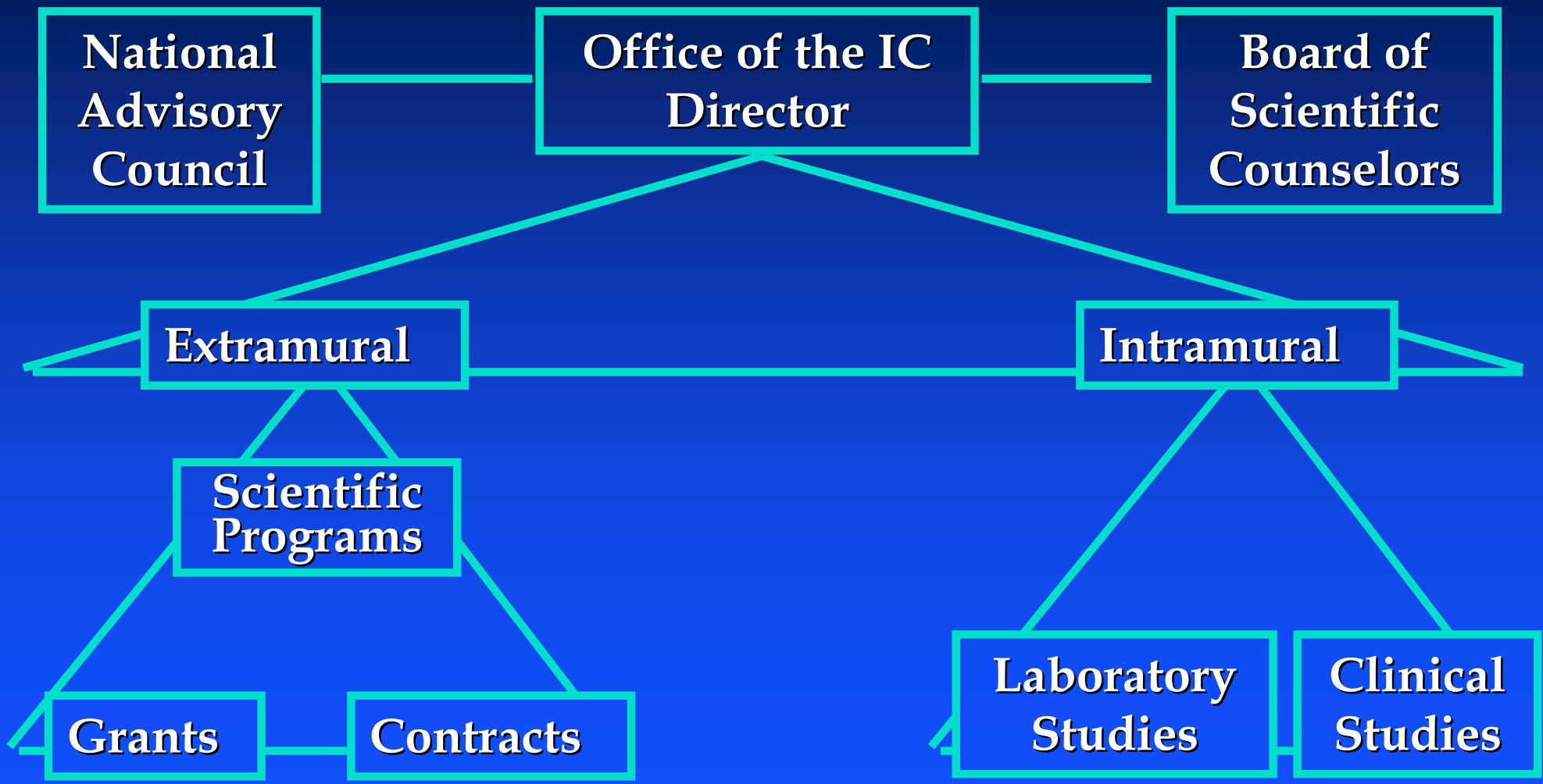
NIH Grant

Application & Review Process



National Institutes of Health

A Typical Institute/Center



NIH Extramural Program

Grant	**Patron (assistance, encouragement)**
Cooperative Agreement	**Partner (assistance but substantial program involvement)**
Contract	**Purchaser (procurement)**

Typical Timeline for a New Individual Research Project Grant Application (R01)

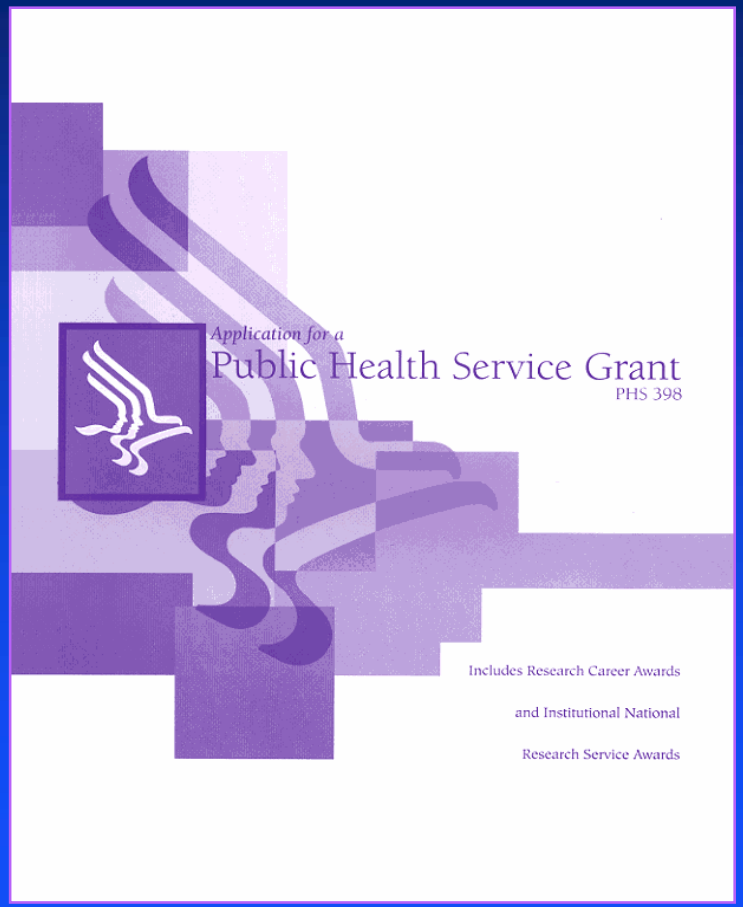
There are three overlapping cycles per year:

–Submit in February (June, October)
  –Review in June (October, February)
    –Council in September (January, May)
      –Earliest award in December (April, July)

Cycle 1----
Cycle 2----
Cycle 3----

PHS Research Grant Application Kit (form PHS 398)

ftp://ftp.grants.nih.gov/forms/phs398.pdf



Mail Completed Forms To:

CENTER FOR SCIENTIFIC REVIEW
NATIONAL INSTITUTES OF HEALTH
ROCKLEDGE II ROOM 1040 MSC-7710
BETHESDA MD 20892-7710

When Preparing an Application

- Read instructions (FONT$_{\text{FONT}}$)
- Never assume that reviewers "will know what you mean"
- Refer to literature thoroughly
- State rationale of proposed investigation
- Include well-designed tables and figures
- Present an organized, lucid write-up
- Obtain critical, substantive pre-review

Applications Submitted to NIH

- Approximately 40,000 grant applications are submitted to NIH each year, of which 25-30% are funded
- Competing grant applications are received for three review cycles per year

Applications are Assigned to:

- **Scientific review groups based on:**
  - **Specific review guidelines for each scientific review group**
- **Institutes based on:**
  - **Overall mission of the Institute**
  - **Specific programmatic mandates and interests of the Institute**

Assignment to CSR Study Sections

Applications are assigned to Integrated Review Groups (IRGs) for review. IRGs are clusters of scientifically-related study sections

- **The IRG assignment is based on specific referral guidelines for each IRG**
- **Each of the 20 IRGs within CSR has 5 - 8 standing study sections**

Assignment to CSR Study Sections (continued)

Within an IRG, applications are assigned for review to

- **Standing Study Sections when the subject matter of the application matches the referral guidelines for the study section**
- **Ad Hoc Special Emphasis Panels (SEPs) when the subject matter does not fit into any study section, or when assignment of an application to the most appropriate study section would create a conflict of interest. Also used for special mechanisms (e.g., fellowships, SBIRs, AREAS)**

Assignment to Institutes

Applications are referred to an Institute or Center as the potential funding component:

- **This assignment is based on a match between the research proposed and the overall mission of the Institute or Center**
- **Where applications are appropriate for more than one Institute or Center, multiple assignments are made**

Review Criteria

- **Significance:** Does the study address an important problem? How will scientific knowledge be advanced?
- **Approach:** Are design and methods well-developed and appropriate? Are problem areas addressed?
- **Innovation:** Are there novel concepts or approaches? Are the aims original and innovative?
- **Investigator:** Is the investigator appropriately trained?
- **Environment:** Does the scientific environment contribute to the probability of success? Are there unique features of the scientific environment?

Scientific Review Group or Study Section Actions

- **Scored, Scientific Merit Rating (priority scores and percentiles)**
- **Unscored (lower half)**
- **Deferral**

Summary Statement

Once applications are reviewed, the results are documented by the SRA in a summary statement and forwarded to the Institute (and the PI) where a funding decision is made:

The summary statement contains:

- **Overall Resume and Summary of Review Discussion**
- **Essentially Unedited Critiques**
- **Priority Score and Percentile Ranking**
- **Budget Recommendations**
- **Administrative Notes**

Council Actions

- Concurrence with study section action
- Modification of study section action
- Deferral for re-review

What Determines Which Awards Are Made?

- Scientific merit
- Program Considerations
- Availability of funds

Common Problems in Applications

- Lack of new or original ideas
- Absence of an acceptable scientific rationale
- Lack of experience in the essential methodology
- Questionable reasoning in experimental approach
- Uncritical approach
- Diffuse, superficial, or unfocused research plan
- Lack of sufficient experimental detail
- Lack of knowledge of published relevant work
- Unrealistically large amount of work
- Uncertainty concerning future directions

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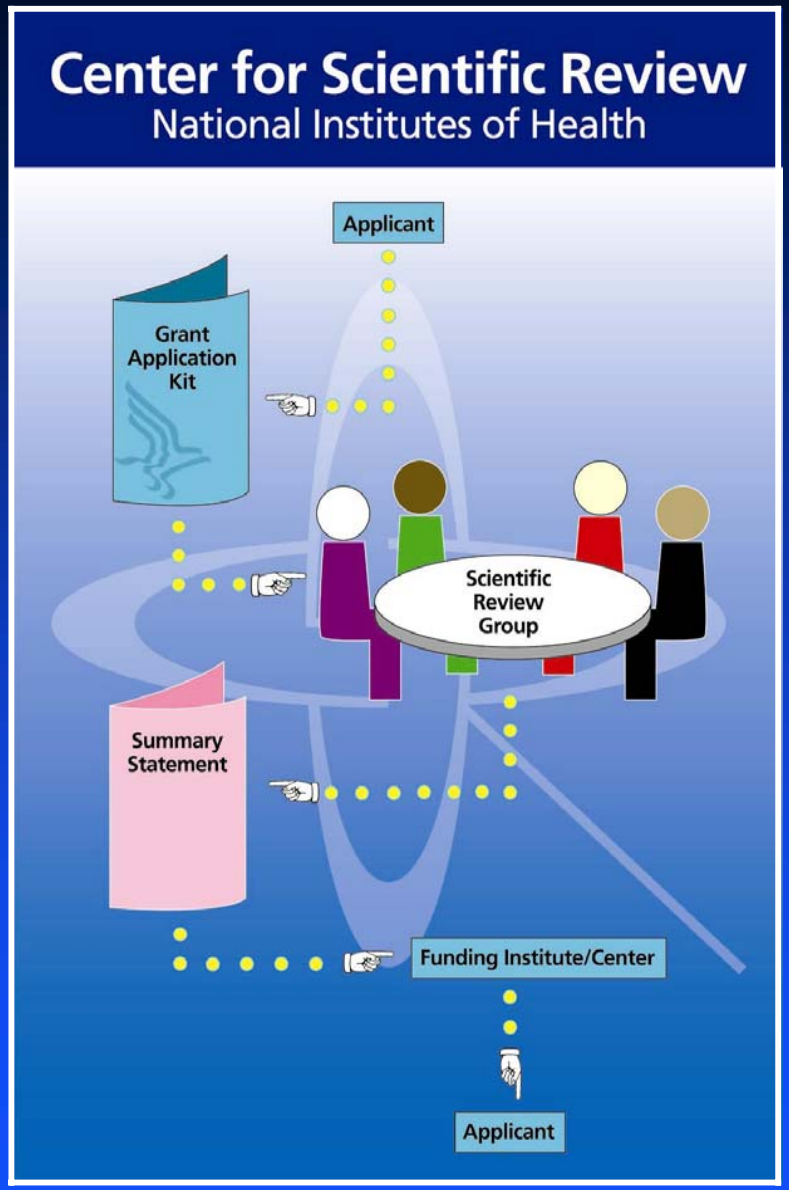

Information on the World Wide Web

Selected Sites of Interest

- National Institutes of Health (http://www.nih.gov)
  - Office of Extramural Research (http://www.nih.gov/grants/oer.htm)
  - Grants Policy (http://www.nih.gov/grants/policy/policy.htm)
- Center for Scientific Review (http://www.csr.nih.gov)
  - Referral and Review (http://www.csr.nih.gov/refrev.htm)
  - Overview of Peer Review Process (http://www.csr.nih.gov/review/peerrev.htm)
  - CSR Study Section Rosters (http://www.csr.nih.gov/committees/rosterindex.asp)
  - NIH Peer Review Notes (http://www.csr.nih.gov/prnotes/prnotes.htm)

There is no grantsmanship that will turn a bad idea into a good one, but… ……

There are many ways to disguise a good one.

William Raub, Past Deputy Director, NIH

In God We Trust, All Others Must Bring Data